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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 006,082	12 06 2001	Rajen M. Patel	44472A	2420

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THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

MULLIS, JEFFREY C

ART UNIT PAPER NUMBER

1711

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006.082

Applicant(s)

PATEL ET AL.

Examiner

Jeffrey C. Mullis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,8,10-20,22 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,9,21 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Applicants' election of fibers not containing an "other polymer" and composite articles in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-3, 6, 7, 9, 21 and 23-25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Applicants' use of the terms "vinyl aromatic unit" and "conjugated diene monomer unit" is confusing since the molecular weights are extraordinarily high for monomeric units and since applicants' specification discloses no monomeric units containing such molecular weights, those skilled in the art when reading applicants' claims would question as to whether or not applicants were actually intending to recite block molecular weights rather than the molecular weights of the monomer units.

The term "enhanced" as it applies to polypropylene in the claims renders the claims unclear since it is subjective as to when a particular property could be said to be enhanced.

The term "absorbent" is unclear or unqualified as to how much absorbency is taking place and what is being absorbed given

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that some materials may absorb only particular types of materials and given that the term "absorbent" is relative.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, 21, 23-25 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bates et al. (USP 5,352,744).

Bates et al. disclose styrene/diene block copolymers having applicants' molecular weights and low styrene (i.e. high diene) levels which are fully hydrogenated. Note Table 1 containing Examples 1 and 3 as well as Table 3 containing the last two examples. Note that the materials may be converted into fibers at column 4 lines 17-20. No specific examples exist in which applicants' specific molecular weights and diene content containing block copolymers are converted into fibers nor is it clear that applicants' viscosities of claim 27 correspond to those in the patent. Furthermore it is not clear if the fiber referred to in the patent is monofilament and no surface treating

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or cross-linking is disclosed nor is the fiber thickness of claim 21 disclosed. However it was widely known at the time of the invention to produce monofilament fibers such as ordinary commercially available sewing thread etc. and it was also known to surface treat fiber materials in order to give them the benefit of dirt repellency and it was also known to produce fibers in the thicknesses of claim 21 and Official Notice is therefore given of these facts.

It would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to surface treat the fiber of Bates et al. to produce fibers beneficially having the characteristic of dirt repellency absent any showing of surprising or unexpected results.

It would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to produce monofilament fibers or fibers having the thickness of applicants' claim 21 motivated by the need to produce fibers in the process of Bates et al. and by the knowledge that fibers could be produced in applicants' thicknesses and as monocomponent fibers absent any showing of surprising or unexpected results.

With regard to applicants' viscosities, it would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to use applicants' viscosities in the composition of Bates et al. in that it requires only routine

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experimentation to find the optimum or workable range of a result effective variable absent any showing of surprising or unexpected results.

Claims 1, 6, 7, 21, 23-25 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoeg et al. (USP 3,598,886).

Hoeg et al. disclose the production of fully hydrogenated block copolymers. Note Table 2 where block copolymers produce having low amounts of styrene as required by the instant claims such as Runs 34-48 etc. which can be calculated as having applicants' molecular weights are produced. Note that the materials can be converted into fibers at column 2 line 61 - column 3 line 7.

There are no specific examples in Hoeg however in which the products of the Examples of Hoeg are actually converted into fibers and furthermore no surface treating of the fibers is disclosed nor does Hoeg disclose the word "monofilament" or applicants' fiber thicknesses in claim 21 and it is not clear if applicants' viscosities are inherent in the reference.

The Official Notice relied upon above is also relied upon with regard to Hoeg et al.

It would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to surface treat the fibers of Hoeg et al. in order to confer the benefit of dirt

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repellency absent any showing of surprising or unexpected results.

The production of fibers having applicants' thicknesses or monocomponent fibers would have been obvious to a practitioner having ordinary skill in the art at the time of the invention motivated by the need to produce fibers by the widely held knowledge that fibers having applicants' thicknesses and which were monocomponent could be produced absent any showing of surprising or unexpected results.

With regard to applicants' molecular weights, use of such in the process of Hoeg et al. would have been obvious to a practitioner having ordinary skill in the art at the time of the invention in that it requires only routine skill to find the optimum or workable range of a result effective variable absent any showing of surprising or unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Mullis whose telephone number is (703) 308-2820. The examiner can normally be reached on Monday-Friday from 9:30 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (703) 308-2462. The fax phone number for this Group is before final (703) 872-9310 and after final (703) 8729311.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2351.

J. Mullis:cdc

June 10, 2003

J. Mullis
Primary Examiner
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